

SA



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,522	06/24/2003	Suk Song Oh	1627.03	7513
29338	7590	02/09/2005	EXAMINER	
PARK & SUTTON LLP 3255 WILSHIRE BLVD SUITE 1110 LOS ANGELES, CA 90010			STOKES, CANDICE CAPRI	
			ART UNIT	PAPER NUMBER
			3732	
DATE MAILED: 02/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/601,522	OH, SUK SONG	
	Examiner	Art Unit	
	Candice C. Stokes	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12,15 and 16 is/are rejected.
- 7) ☒ Claim(s) 3,4,13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/03/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Objections*

Claim 1 is objected to because of the following informalities: In lines 13-14, “the second end is inserted into the root canal” should be “the second end is capable of being inserted into the root canal”, because in its current form, the root canal, which is not a statutory invention, is positively claimed. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1) Claims 1-2,6,11-12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roffe et al as evidenced by Benaron et al (USPN 5,807,261). Roffe et al disclose an apparatus for use in obturating a root canal comprising a pen tip 16 and pen 12 wherein the pen tip 16 is electrically connected to the pen 12. The pen tip 16 comprises a hollow body as shown in Fig. 1, a heating element 18, and temperature sensor 40, wherein the body has a first and second end and the first end is attached to the pen and the second end inserted in the root canal. “As shown in Fig. 1, a temperature sensor 40 is placed in conjunction with the heating means 18

Art Unit: 3732

in order to measure the temperature of the pen tip 16. As such, a control unit 42 is arranged in association with frame 13, and coupled to temperature sensor 40, in order to receive the measured temperature of the pen tip 16 from the temperature sensor 40 and activate the heating means 18 in order to provide for a desired temperature of the pen tip 16. The temperature of the pen tip 16 may thus be maintained in a defined range of temperature whereby if the temperature of the pen tip 16 falls outside the range, the control unit 42 functions to cause the heating means 18 to heat the pen tip 16 until the temperature of the pen tip 16 is either within the range or just beyond the range” (cols. 8-9, lns. 65-67&1-12). Roffe et al disclose all the features of the claimed invention except for the temperature sensor being positioned inside the body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the temperature sensor inside the body of the pen tip, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japiske*, 86 USPQ 70. Also, the invention of Benaron et al (USPN 5,807,261) further support that placement of a sensor or tip information element 42 may be in the tip of a probe or pen.

As to Claims 2 and 11-12, Roffe et al disclose the claimed invention except for the predetermined ranges. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the heating element at any distance, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding Claims 6 and 16, Roffe et al does not disclose the heating element being a K-type sensor. It would have been obvious to one having ordinary skill in the art at the time of the invention to use a variety of types of heating elements including a K-type, since it has been held

that the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

2) Claims 5,7-8,10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roffe et al in view of Okawa et al (US 2002/0086264). Roffe et al disclose the claimed invention except for the pen tip being tapered; a needle portion; and the needle having a cap. As to Claims 5,10 and 15 Okawa et al teach a dental filling instrument having a tapered tip as shown in Fig. 6. Regarding Claim 7, the apparatus further includes a needle fitting portion 37 for injecting the filling material into the root canal and gun 10 for holding the needle. Finally to Claim 8, Okawa et al teach the needle having a cap 90 as shown in Fig. 8. It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the features of the dental apparatus taught by Okawa et al into the invention of Roffe et al in order to provide a dental instrument with a needle for more precise filling of a root canal.

3) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roffe et al in view of Okawa et al as applied to claim 8 above, and further in view of Weissman (USPN 5,017,137). Roffe et al and Okawa et al teach all the features of the claimed invention except for the knurled portion of the cap. Weissman teaches a dental tool with a knurled surface as shown in Fig. 1 for preventing the tool from slipping. It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the knurled portion as taught by Weissman in order to provide a tip which will not slip from the during application to the root canal.

Art Unit: 3732

*Allowable Subject Matter*

Claims 3-4 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candice C. Stokes whose telephone number is (571) 272-4714. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Candice C. Stokes

  
Cary E. O'Connor  
Primary Examiner